

**Please replace the abstract with the following amended abstract:**

A2  
An antenna device for transmitting and receiving radio frequency waves, installable in a communication device includes an antenna structure switchable between a plurality of antenna configuration states. Each ~~antenna configuration~~ state is distinguished by a set of radiation parameters, such as resonance frequency, input impedance, bandwidth, radiation pattern, gain, polarization, and near-field pattern. A switching device selectively switches the antenna structure between the plurality of ~~antenna configuration~~ states. The antenna device further includes a first receiver which receives a first measured operation parameter indicative of ~~[[the]]~~ quality of transmission of radio frequency waves by the antenna structure, and a second receiver which receives a second measured operation parameter indicative of ~~[[the]]~~ quality of reception of radio frequency waves by the ~~antenna~~ structure. The antenna device ~~[[also]]~~ includes a controller ~~control device~~ which controls the switching device, and ~~thus~~ the selective switching of the antenna structure between the plurality of antenna ~~configuration~~ states, based on ~~in accordance with~~ the first and second measured operation parameters, ~~[[so as]]~~ to improved the quality of transmission and/or reception quality.